IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

App. No. : (Nat'l. Stage of PCT/JP2004/004800)

Applicant : Nobuhiro Ota, et al. Filed : On even date herewith

Tech. Cntr./Art Unit : (To be assigned)

Examiner : (To be assigned)

Docket No. : 39.052 Customer No. : 29453

Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This constitutes an Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.97 and 1.98. The documents listed on the accompanying Form PTO/SB/08A are hereby brought to the Examiner's attention in the patent application identified above.

REMARKS

Cite Nos. F1 through F5, as listed on Form PTO/SB/08A, were cited in the International Search Report for PCT/JP2004/004800, of which the presently submitted patent application is to be the National Stage. Among these, Cite Nos. F1 through F5 are not in English.

Furthermore, Cite Nos. F6 through F14, and Cite Nos. O2 through O4 are not in English either.

Concise Explanation of Relevance/Copy of Translation Pursuant to 37 C.F.R. § 1.98(a)(3)

As a concise explanation of the relevance of Cite Nos. F1 through F5, a copy of the International Search Report, in Japanese, accompanies this paper. Although the Search Report is not in English, the categories designating the relevancy as assessed by the International Searching Authority are readily apparent next to the corresponding document identification numbers on the report.

10/542311 JC17 Rec'd PCT/PTO 15 JUL 2005

Nat'l. Stage of Int'l. App. No. PCT/JP2004/004800 IDS Submission dated July 11, 2005

Cite No. F5 is also discussed in the Background of the present specification, in the paragraph that begins in line 16 on page 2, and in the paragraph that begins in line 3 on page 3.

The relevance of non-English Cite Nos. F6 through F8 and Cite Nos. O2 through O4 is discussed in the Background, in the order F6, (O1), F7, F8, (F5), O2, (F5), O3, O4, (Cite No. U1 also being discussed therein, in the first paragraph of the Background).

The relevance of non-English Cite Nos. F9 and F10 is discussed—together with Cite Nos. U1 and U2—in the paragraph that begins in line 23 on page 3, and continues through line 6 on page 4, in the Background of the present specification, where in the next paragraph, the relevance of Cite Nos. F9 and F10 alone is detailed.

As to the relevance of non-English Cite Nos. F11 through F13, English abstracts of these references are available on the Japanese Patent Office website through Patent Abstracts of Japan (PAJ), and a copy of the corresponding PAJ abstract is attached to the back of each.

Furthermore, English abstracts of Cite Nos. F1 through F5 and F7 through F13 are likewise available, and a copy of the corresponding PAJ abstract is attached to the back of each of these references. (Note that Cite No. F8 is a published Japanese <u>patent</u>, as opposed to a published Japanese unexamined patent application, which is what Cite Nos. F1 through F5, F7, and F9 through F13 are. Nevertheless, the English abstract for Cite No. F8 is taken from the published corresponding unexamined patent application.)

As to the relevance of Cite No. F14, this reference is a published <u>examined</u> Japanese patent application, and as such no PAJ abstract is available. Nevertheless, a Derwent abstract is available, attached to the back of the reference, from which the presence of a corresponding U.S. patent by the same applicant is apparent. Accordingly, in addition to the Derwent abstract, a copy of U.S. Pat. No. 4,599,284 is attached to the back of this reference.

Like Cite No. F14, Cite No. F6 is a published examined Japanese patent application, and likewise a Derwent abstract is attached to the back, to further assist the examiner in considering the reference

Nat'l. Stage of Int'l. App. No. PCT/JP2004/004800 IDS Submission dated July 11, 2005

JC17 Rec'd PCT/PTO 15 JUL 2005

The Examiner is respectfully requested to consider these references, to indicate so on the accompanying Form PTO/SB/08A, and to make the document of record in the present application.

Respectfully submitted,

Date: July 11, '05

James W. Judge

Registration No. 42,701

JUDGE PATENT FIRM

Rivière Shukugawa 3rd Fl. 3-1 Wakamatsu-cho Nishinomiya-shi, Hyogo 662-0035 JAPAN

Telephone: 305-938-7119 Voicemail/Fax: 703-997-4565

10/542311 JC17 Rec'd PCT/PTO 15 JUL 2005,

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449/PTO Nat'l Stage of PCT/JP2004/004800 **Application Number** Filing Date April 1, 2004 [371(c) date] INFORMATION DISCLOSURE First Named Inventor Nobuhiro Ota STATEMENT BY APPLICANT Art Unit (To be assigned) (Use as many sheets as necessary) Examiner Name (To be assigned)

| Sheet | | 1 of | 4 | Attorney Docket Number 39.052 | |
|--------------------|--------------------------|--|--------------------------------|--|---|
| | | - | U. S. PATENT | DOCUMENTS | |
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ^{2 (f known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | U1 | ^{US-} 5,314,765-A | 05-24-1994 | Bates | |
| | U2 | ^{US-} 6,025,094-A | 02-15-2000 | Visco et al. | |
| | U3 | ^{US-} 4,599,284 | 07-08-1986 | Akridge | |
| | U4 | ^{US-} 5,085,953-A | 02-04-1992 | Akridge et al. | |
| | U5 | ^{US-} 5,217,826-A | 06-08-1993 | Yamamura et al. | |
| | U6 | ^{US-} 6,641,863-B2 | 11-04-2003 | Kugai et al. | |
| | U7 | ^{US-} 6,365,300-B1 | 04-02-2002 | Ota et al. | |
| | U8 | ^{US-} 6,699,619-B2 | 03-02-2004 | Kugai et al. | |
| | | us- | | | |
| • | | US- | | | |
| | 1 | US- | | | |

| | | FORE | IGN PATENT DOCU | MENTS | * | | |
|-----------------------|--------------|---|-------------------------|---------------------|--|---|--|
| Examiner Initials* | Cite No.1 | | Foreign Patent Document | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages | |
| | | Country Code ^{3 -} Number ^{4 -} Kind Code ⁵ (if known) | MM-DD-YYYY | | Or Relevant Figures Appear | ⊤ª | |
| | F1 | JP-2004-087402-A | 03-18-2004 | Sony | | 1 | |
| - | F2 | JP-2003-115293-A | 04-18-2003 | NEC | | ~ | |
| | F3 | JP-2003-303618-A | 10-24-2003 | NEC | | ~ | |
| | F4 | JP-2003-045415-A | 02-14-2003 | NEC | | ~ | |
| | F5 | JP-2001-250580-A | 09-14-2001 | Tstsumisuna | | ~ | |
| | F6 | JP-H05-048582-B2 | 07-21-1993 | Union Carbide Corp | | ~ | |

| | | |
|-----------|------------|--|
| Examiner | Date | |
| Signature | Considered | |
| l o.g | 4 | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁸Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

\$10 1542311 JC17 Rec'd PCT/PTO 15 JULE/020053) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Application Number Nat'l Stage of PCT/JP2004/004800

Filing Date April 1, 2004 [371(c) date]

First Named Inventor Nobuhiro Ota

Art Unit (To be assigned)

Examiner Name (To be assigned)

Attorney Docket Number 39.052

| U. S. PATENT DOCUMENTS | | | | | | | |
|------------------------|--------------|--|-----------------------------|--|---|--|--|
| Examiner Initials* | Cite No.1 | Document Number Number-Kind Code ^{2 (f known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| 0.00 | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | ' | | |
| | | US- | | | | | |
| | | ÚS- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |
| | | US- | | | | | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | |
|-----------------------|--------------------------|---|------------------|--|---|----------------|--|--|
| Examiner Initials* | Cite No.1 | Foreign Patent Document | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages | | | |
| | | Country Code ³ Number ⁴ Kind Code ⁵ (if known) | MM-DD-YYYY | | Or Relevant Figures Appear | T ⁶ | | |
| | F7 | JP-H04-202024-A | 07-22-1992 | Matsushita Electric | | ~ | | |
| | F8 | JP-3,343,936 | 08-30-2002 | Matsushita Electric | | ~ | | |
| | F9 | JP-2000-340257-A | 12-08-2000 | Sumitomo Electric | | ~ | | |
| | F10 | JP-2002-329524-A | 11-15-2002 | Sumitomo Electric | | ~ | | |
| | F11 | JP-S59-073851-A | 04-26-1984 | Sanyo Electric | | ~ | | |
| | F12 | JP-H04-231346-A | 08-20-1992 | Eveready Battery | | 1 | | |

| Examiner | 5.00 | Date | |
|-----------|----------|------------|----------|
| | | | 1 |
| Signature | | Considered | } |
| l | | | ! |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

10/542311

JC17 Rec'd PCT/PTO 15 JUL

P1U/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449/PTO Application Number Nat'l Stage of PCT/JP2004/004800 Filing Date April 1, 2004 [371(c) date] INFORMATION DISCLOSURE First Named Inventor Nobuhiro Ota STATEMENT BY APPLICANT Art Unit (To be assigned) (Use as many sheets as necessary) **Examiner Name** (To be assigned)

Attorney Docket Number

Sheet 39.052 **U. S. PATENT DOCUMENTS Publication Date** Name of Patentee or Pages, Columns, Lines, Where Examiner Cite **Document Number** MM-DD-YYYY Applicant of Cited Document Relevant Passages or Relevant Initials' Number-Kind Code² (# known) Figures Appear US-ŪS-US-US-US-US-US-US-US-HS-US-US-US-USiis-US-US-US-US-

| | | FORE | IGN PATENT DOCL | MENTS | | |
|--------------------|--------------------------|---|---------------------|--|---|----------|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages | |
| | | Country Code ³ Number ⁴ Kind Code ⁵ (if known) | MM-DD-YYYY | | Or Relevant Figures Appear | ₽ |
| | F13 | JP-H06-290773-A | 10-18-1994 | Nippondenso | | ~ |
| | F14 | JP-H06-054687-B2 | 07-20-1994 | Union Carbide | | ~ |
| | | | | | | |
| | | | | | | <u> </u> |
| | | | | | | <u> </u> |
| | 1 | | | | 1 | I |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |
| | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

JC17 Rec'a PCI/FID 15542 3111

Approved for use through 07/31/2006 CM PTO/SB/08B (08

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| Substitut | e for form 1449/PTO | | · · · · · · · · · · · · · · · · · · · | Complete if Known | | | |
|-----------------------------------|---------------------|----------|---------------------------------------|------------------------|----------------------------------|--|--|
| Substitute (5) (5) (1) (1) | | | | Application Number | Nat'l Stage of PCT/JP2004/004800 | | |
| INFO | DRMATION | DIS | CLOSURE | Filing Date | April 1, 2004 [371(c) date] | | |
| STATEMENT BY APPLICANT | | | PPLICANT | First Named Inventor | Nobuhiro Ota | | |
| (Use as many sheets as necessary) | | | | Art Unit | (To be assigned) | | |
| | (Use as many sne | ets as m | ecessary) | Examiner Name | (To be assigned) | | |
| Sheet | 4 | of | 4 | Attorney Docket Number | 39.052 | | |

| | l 0:4= | NON PATENT LITERATURE DOCUMENTS | Ι |
|-----------------------|--------------------------|---|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| | 01 | J. H. KENNEDY, et al., "lonically Conductive Sulfide-based Lithium Glasses," Jornal of Non-Crystalline Solids, 123 (1990), pp. 328-338 | |
| | O2 | Y. YONEDA, et al., "Mixed anion effect on lithium ion conductivity of amorphous materials in the system Li2O-Li2S-P2S5," Extended abstracts of presentations at the 28th Symposium on Solid-State Ionics, November 2002, pp. 24-25 | ~ |
| | О3 | S. HAMA, et al., "Synthesis and High Lithium Ion Conductivity of New Glass-ceramics in the System Li2S-P2S5," Extended abstracts of presentations at the 26th Symposium on Solid-State Ionics, November 2000, pp. 174-175 | ~ |
| | 04 | M. MURAYAMA, et al., "Synthesis, Property and Structure of New Lithium Ionic Conductor, Thio-LISICON; Lithium Thiophosphate System" Extended abstracts of presentations at the 26th Symposium on Solid-State Ionics, November 2000, pp. 178-179 | ~ |
| | O5 | N. MACHIDA, et al., "Mechano-chemical Synthesis of Lithium Ion Conducting Materials in the System Li2O-Li2S-P2S5" J. Jpn. Soc. Powder Powder Metallurgy, Vol. 51, No. 2, February 2004, pp. 91-97 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.